movement of the bird caught our attention from a distance of about 50 m. On focussing our binoculars we were surprised to find grey colour on the head and flanks of the neck and a very distinct white ring around the eyes. Moustachial streaks were also very prominent. The rest of the body on ventral side was light brownish in colour. The dorsal side was very much like that of a sparrow, but with darker streaks on the folded wings meeting over the rump. The tail was forked and during flight white coloration of the outer retrices could be observed. Colour of the beak brownish yellow and legs were almost brown. On 10 April 1987 it was again seen at the same place feeding from 1200

to 1600 hrs. On intrusion it took refuge on the *Babul* tree. We kept a watch over the bird's activities and found it feeding at the same place from 9 to 19 April 1987. Thereafter it left the place. We consulted the HANDBOOK OF THE BIRDS OF INDIA AND PAKISTAN (Compact Edition) (Ali & Ripley) and concluded that the bird was a Greynecked Bunting.

RAZA TEHSIN MANOJ KULSHRESHTHA RAVINDER SINGH

July 30, 1987.

35, FOUR ADDITIONS TO THE BIRDS OF KERALA

Out of the 300 and odd species of birds belonging to the Order Charadriformes (waders, gulls, terns etc.), only 41 species are included in THE BIRDS OF KERALA by Salim Ali (Oxford University Press, 1968). The status of some among these 41 species is still quite uncertain. During a study conducted in the Kadalundy estuary from September 1985 to June 1986, we discovered at least four species hitherto unrecorded in Kerala. We have also earlier observed 3 species recorded as very uncommon in Kerala before.

Kadalundy is about 20 km south of Calicut, (11° 05° N, 75° 51'E). Here the Kadalundy river originating in the Karuvarakundu forests west of the Silent Valley, joins the Arabian sea. The river mouth is blocked in part by a coastal sandbar, thus forming a lagoon undisturbed by the turbulence of the sea. A railway line cuts across the estuary. Our study was conducted mainly in the 60 acre wetland between the railway line and the sea. During low tide, about 25 acres of mudflats become exposed.

We paid about 45 visits to Kadalundy, jointly or separately, between September 1985 and June 1986. We observed in the study area more than 30 resident birds and 50 migrants. We did not attempt to identify several warblers seen there. Of the birds not included in THE BIRDS OF KERALA or reported later in *J. Bombay nat. Hist. Soc.*, only those we could identify for certain are described in this note.

Sandwich Tern Sterna sandvicensis: Our most exciting find in Kadalundy was the Sandwich Tern. There are only two previous records of this bird in India. In 1958, Dharmakumarsinhji observed it near Varaval Coast in Saurashtra (JBNHS 55:35). In 1976, C.K. Krishnaprasad of Cherai near Cochin shot a Sandwich Tern bearing a ring put on it at Krasnovodsk Reserve, Krasnovodsk Gulf, Caspian Sea, Turkmenian SSR, USSR.

The Sandwich Tern was first observed in Kadalundy by one of us (LN) on 6 October. The bird was seen in fairly large numbers during all our subsequent visits. From January to March they were present in hundreds. On 10 March we estimated their numbers at 500. Sandwich Terns were always seen along with Large Crested and other terns, and sometimes in large mixed flocks of terns and gulls. Never did we observe Sandwich Terns fishing in the Kadalundy Estuary. It appeared that they went for fishing to the open sea in the mornings and evenings and came to the estuary to rest during the hot hours of the day. By about 0800 hrs one could see small parties of Sandwich Terns coming from the west (the Arabian sea). By about 1600 hrs they flew back in the opposite direction. The black bill with yellow tip and black legs were distinctly observed.

On 27 March there was a large number of Sandwich Terns in Kadalundi. But they were absent on 5 and 19 April. Surprisingly, LN saw 4 Sandwich Terns on 1 June. Grey Plover Pluvialis squatarola: The Grey Plover has not been recorded in Kerala and is not mentioned in THE BIRDS OF KERALA. On 5 October, LN observed one Grey Plover in Kadalundy. On 16 November there were 3, and on 24 November, 10. Thereafter the Grey Plover was regularly seen in Kadalundy in fairly large numbers. It was last seen on 10 March. At times there were flocks of about 25 birds feeding or resting at the edge of the water, sometimes even in water a few inches deep. Grey Plovers always kept near the edge of the water, unlike Golden Plovers, which were also seen in fairly large numbers, and favoured the eastern half of the mudflats dotted with reeds and a few emergent mangroves. We never observed any interaction between these two plovers in Kadalundi.

PKU has taken pictures of Grey Plovers showing the identification marks, black armpits and white rump, clearly. We have also observed this bird in Calicut north and in Badagara Sandbanks (40 km north of Calicut) and also in

the Azheekal estuary near Cannanore. Prof. K.K. Neelakantan saw the Grey Plover near Trivandrum at Perumathurai, a bird with vestiges of breeding plumage on 6 October 1973 and a few at Poovar on 19 November 1978, 22 January 1979, and 28 January 1979 (Pers. comm.). From these observations it can be safely deduced that the Grey Plover is not an uncommon winter visitor to the Kerala coast.

Dunlin Calidris alpina: Salim Ali says in THE BIRDS OF KERALA, "No doubt the Dunlin Calidris alpina (Linnaeus) also winters in Kerala with mixed flocks of small waders on the sea coast, but has been overlooked." From 7 November 1985 to 27 March 1986, the Dunlin was seen regularly in Kadalundy. We have estimated 20–30 birds feeding with other small waders like the Terek Sandpiper, the Curlew Sandpiper, the Turnstone, the Lesser Sandplover, the Kentish Plover, the Little Stint, and the Temminck's Stint. The Curlew Sandpiper and the Dunlin were seen side by side and could easily distinguish them by comparing the curvature of the bills. The bill of the Dunlin is only slightly downcurved at its tip. This bird used to feed all over the exposed mudflat. At least in Kadalundy the Dunlin is a common winter visitor.

Bartailed Godwit Limosa lapponica. Neither the Blacktailed nor the Bartailed Godwit has been recorded previously in Kerala. The Bartailed Godwit was first seen in Kadalundy on 7 November. Its number was never high in Kadalundy. On 15 November, 6 birds were observed, and on 29 November LN saw 10. This was the largest number ever seen. Usually Bartailed Godwits were seen resting and preening among other waders, almost always near the waterline and sometimes even in shallow water. On 8 December LN saw one Bartailed Godwit feeding in the estuary. This species was not seen in Kadalundi after 23 December.

Temminck's Stint Calidris temminkii: In THE BRDS OF KERALA, Salim Ali says: "Although the Temminck's Stint has not been recorded from Kerala, it is more than likely that it occurs in winter along with the Little Stint". The occurrence of the Temminck's Stint was recorded by Dr A.J. Gaston from Cheruthuruthy, in Bharatapuzha (JBNHS 2: 28). Even though we might have seen the Temminck's Stint earlier, we identified the bird first on 19 January. Along with the Little Stint was another bird of the same size and with the same type of bill, but with yellowish brown legs and brownish breast. We could also note the white outer tail feathers.

As Temminck's Stints always associated with Little Stints, it was easy to estimate their approximate number,

which was definitely not very high. The Temminck's Stint was seen in Kadalundy till 5 April.

Oystercatcher Haemantopus ostralegus: Even though the Oystercatcher is included in THE BIRDS OF KERALA, there are very few sight records of this bird in Kerala. It was last reported by Jerdon from the Tellicherry coast. In 1980 September LN saw a single Oystercatcher on Calicut beach for a few days.

On 15 September 1985, all three of us were watching birds in the Kadalundy esquary. On that day, with the migration at its peak, the estuary was teeming with waders. including a number of curlews and Whimbrels, By about 1030 hrs two Oystercatchers appeared in the shallow waters in the western part of the estuary. After staying there for only a few minutes, the birds took to their wings. presumably disturbed by passing country boats. Within those few minutes during which we could observe them, PKU took a few pictures of the Oystercatchers clear enough for record purposes. Later in the season LN and C. Sasikumar of Cannanore saw 5 Oystercatchers in the Azheekal estuary near Cannanore, but they were not seen at Kadalundy after 15 September, Sasikumar has since regularly seen Oystercatchers in Azheekal. The largest number seen by him was 14 (pers. comm.).

Lesser Blackbacked Gull Larus fuscus: According to THE BIRDS OF KERALA, there is only one record of the Lesser Blackbacked Gull from the Kerala coast. Throughout the migration season, thousands of gulls occur at Kadalundy estuary. On 12 January, in the midst of a large flock of Brownheaded Gulls and Lesser Blackheaded Gulls, six large sized gulls with dark mantles were seen. The Lesser Blackbacked Gull was seen again on 25 January and on 2 February. This gull is only an occasional visitor to the Kadalundy estuary, like the Great Blackheaded Gull seen for a few days in March.

In variety and concentration of birds, especially of waders and terns, the Kadalundi estuary surpasses any similar area we have seen in Kerala. Surely it is a unique bird habitat, and, as such, it has to be properly protected. We persuaded the district administration to put up a notice board prohibiting the shooting of birds in Kadalundy, but a lot more remains to be done by was of research and conservation action. We are grateful for the financial assistance provided by the Dept. of Environment, Govt. of India.

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